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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,009	09/27/2005	Andrew Beger	DC5116 PCT1	1375

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EXAMINER	
LOEWE, ROBERT S	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
08/13/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary	Application No.	Applicant(s)	
	10/551,009	BEGER ET AL.	
	Examiner	Art Unit	
	ROBERT LOEWE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/21/08 has been entered.

The Advisory action of 6/13/08 states that the Applicants response, "filed on 5/27/08, will not be entered..." Applicants submit that the response was filed on 5/22/08. A certificate of mailing is included as Exhibit A. The Examiner agrees that the **mailing** date of 5/22/08 is accurate. The **filing** date of 5/27/08 reflects the date the Office received the proposed amendment. The certificate of mailing (exhibit A) is sufficient to prove that the proposed amendment was mailed by Applicants within the three month time period for response.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Freiberg et al. (US Pat. 6,132,664).

Claim 1: Freiberg et al. teaches a moisture-curable composition which cures to a rubber/elastomer consisting essentially of: (a) an organopolysiloxane having at least 1.2 silicon-

bonded alkoxy/hydrolysable chain terminations per molecule, and further teaches organopolysiloxanes having not less than two hydroxyl or hydrolyzable groups (2:50-59 and 4:40-5:52 and structure at 8:45). Freiberg et al. further teaches (b) an alkoxysilane having the formula $R^4_zSi(OR)_{4-z}$ where z can be 0, 1, or 2. When z is equal to 2, the organosilane has the formula G_2-Si-R^1_2 of instant claim 1 (3:1-7). Freiberg et al. further teaches that the composition comprises (c) a filler (3:9), and (d) a photocatalyst (2:60-67). Last, there is nothing taught by Freiberg et al. requiring the presence of other ingredients which would materially affect the properties of the claimed composition. As such, Freiberg et al. does indeed teach a composition "consisting essentially of" the ingredients of instant claim 1.

Freiberg et al. does not explicitly teach that the cured rubber/elastomer body has a surface with a maximum gloss value of 45. However, Freiberg et al. teaches the same compositions as that of instant claim 1. The courts have stated that a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655, (Fed. Cir. 1990). See also *In re Best*, 562 F.2d 1252, 195 USPQ 430, (CCPA 1977). "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established."

Claims 2 and 3: Freiberg et al. further teaches that the organosilane (b) can be dimethyldimethoxysilane, vinylmethyldimethoxysilane, dimethyldiethoxysilane and ethylmethyldiethoxysilane (6:52-54).

Claims 4 and 5: Freiberg et al. further teaches that the filler (c) can be fumed silica and/or a fatty acid treated precipitated calcium carbonate (7:1-5).

Claims 6-8: Freiberg et al. further teaches that the photocatalyst is a titanate of the formula $Ti(OR^5)_4$ where R^5 is a hydrocarbon group. Examples include those found on column 8, lines 51-67. It is recognized by the examiner that component (d) is not referred to as a photocatalyst by Freiberg et al. However, because Freiberg et al. teaches the same species as those found in instant claims 6-8, it inherently follows that component (d) as taught by Freiberg et al. will function as a photocatalyst as claimed in instant claims 1 and 6-8.

Claim 9: Freiberg et al. further teaches that component (a) is a linear polydiorganosiloxane having terminal groups of $-Si(R^2)_2-R^3-Si(R^2)_k(OR^4)_{3-k}$. Examples include the polydiorganosiloxanes of formulas (I), (II), and (III) found on columns 4 and 5 and polymer 1 found on column 8 of Freiberg et al.

Claim 10: It is the position of the Examiner that claim 10 further limits an optional ingredient of instant claim 1; therefore, such limitations are not required for the claimed composition, therefore Freiberg et al. can be relied upon in the rejection of instant claim 10.

Claim 11: Using example 2A of Table 1, Freiberg et al. further teaches the composition of instant claim 1. Specifically, when normalizing the values of table 1 to account for 100 parts of component (a), Freiberg et al. teaches: 100 parts of component (a), 3.4 parts of component (b), 46 parts of component (c), and 2.3 parts of component (d) (Table 1, sample 2A). Sample 2A is just a representative example, as the other entries in table 1 also effectively teach instant claim 11.

Claim 12: Freiberg et al. further teaches an elastomeric product comprising the composition of instant claim 1 (1:8-19).

Claim 14: Freiberg et al. further teaches a method of using the composition of instant claim 1 as a sealant (2:5-10).

Claim 15: Freiberg et al. further teaches a method of forming an elastomeric mass between surfaces which is adherent to at least two such surfaces which method comprises introducing between the surfaces a mass of a moisture curable composition of instant claim 1 and curing the composition in the presence of moisture (7:25-8:30). While Freiberg et al. does not explicitly teach curing the compositions in the presence of light, such a limitation is considered inherent in Freiberg et al. especially when considering the experiment which measures cure rate measured by skin over time (SOT) (9:30-43). In said experiment, a stopwatch was utilized and the SOT was measured by lightly touching the surface with the end of a finger. This experiment requires the presence of light (both to see the stopwatch and to see the substrate so as to monitor the SOT), thus the presence of light during the curing step is inherent.

Claim 16: Since Freiberg et al. teaches that the amount of component (B) of instant claim 1 is present at, for example, 3.4 parts by weight based on 100 parts by weight of component (A). Since Freiberg et al. also teaches some of the same species of component (B), it inherently follows that Freiberg et al. teaches that component (B) contains from 0.2-7 parts by weight alkenyl content.

Claim 17: Freiberg et al. teaches a moisture-curable composition which cures to a rubber/elastomer consisting essentially of: (a) an organopolysiloxane having not less than two silicon-bonded alkoxy/hydrolysable chain terminations per molecule (2:50-59 and 4:40-5:52 and

structure at 8:45). Freiberg et al. further teaches an alkoxysilane such as vinylmethyldimethoxysilane (component (b) of instant claim 17; 6:52). Freiberg et al. further teaches that the composition comprises (c) a filler (3:9), and (d) a photocatalyst, which can be a mixture of a dialkoxy-functional chelated titanate and a tetraalkoxy-functional chelated titanate (2:60-67). While Freiberg et al. does not employ the claimed dialkoxy-functional chelated titanate catalyst exclusively, it is nevertheless the position of the examiner that Freiberg et al. teaches the claimed composition in the manner of "consisting essentially of". The role of both the di- and tetraalkoxy titanium curing catalysts is the same; therefore the presence of the tetraalkoxy titanium curing catalyst should not materially affect the properties of the claimed composition as per MPEP 2111.03 which is concerned with claims presented using "consisting essentially of" language. Further, Applicant's teach that suitable photocatalysts include tetraalkoxytitanium catalysts (paragraph 0029 of instant application).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freiberg et al., as applied to instant claims 1 and 12 above, in view of Altes et al. (US Pat. 5,357,025, cited on Applicants' information disclosure statement).

Freiberg et al. teaches the composition of instant claim 1 and an elastomeric product comprising the composition of instant claim 1, as described above. Freiberg et al. does not explicitly teach the addition of an air-sealant interface to the cured composition. However, Altes et al. does teach sealant compositions having a siloxaphobic surface layer at the air-sealant interface (abstract). Freiberg et al. and Altes et al. are combinable because they are from the same field of endeavor, namely, room-temperature curable polysiloxane sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the ingredient responsible for forming the surface layer, that is, component (C) of Altes et al. to the composition of instant claim 1 and would have been motivated to do so because Altes et al. teaches that the addition of such a component yields a cured sealant having excellent properties, such as dirt-repellency, amongst others. The addition of component (C) of Altes et al. is largely responsible for the improved properties of the sealant.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freiberg et al. in view of Mikami (US Pat. 4,683,251).

Freiberg et al. teaches a moisture-curable composition which cures to a rubber/elastomer consisting essentially of: (a) an organopolysiloxane having not less than two silicon-bonded alkoxy/hydrolysable chain terminations per molecule (2:50-59 and 4:40-5:52 and structure at 8:45). Freiberg et al. further teaches an alkoxysilane such as dimethyldiethoxysilane, dimethyldimethoxysilane, and ethylmethyldiethoxysilane (6:52-53). Freiberg et al. further teaches that the composition comprises (c) a filler (3:9), and (d) a photocatalyst, which can be a mixture of a dialkoxy-functional chelated titanate and a tetraalkoxy-functional chelated titanate (2:60-67). While Freiberg et al. does not employ the claimed dialkoxy-functional chelated titanate catalyst exclusively, it is nevertheless the position of the examiner that Freiberg et al. teaches the claimed composition in the manner of "consisting essentially of". The role of both the di- and tetraalkoxy titanium curing catalysts is the same; therefore the presence of the tetraalkoxy titanium curing catalyst should not materially affect the properties of the claimed composition as per MPEP 2111.03 which is concerned with claims presented using "consisting essentially of" language. Further, Applicant's teach that suitable photocatalysts include tetraalkoxytitanium catalysts (paragraph 0029 of instant application).

Freiberg et al. does not explicitly teach that the addition of an unsaturated compound to the composition as required by instant claim 18. However, Mikami teaches a room-temperature curable composition which has an unsaturated fatty acid ester (abstract). Freiberg et al. and Mikami are combinable because they are from the same field of endeavor, namely, moisture curable compositions based on polysiloxanes having silanol groups, curing catalysts, and silane crosslinkers. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the unsaturated ester compounds as taught by Mikami to the

compositions of Freiberg et al. and would have been motivated to do so because the addition of such a component imparts a stain proofing effect to the cured composition (4:43-50).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freiberg et al. in view of Hatanaka et al. (US Pat. 5,665,805).

Freiberg et al. teaches a moisture-curable composition which cures to a rubber/elastomer consisting essentially of: (a) an organopolysiloxane having not less than two silicon-bonded alkoxy/hydrolysable chain terminations per molecule (2:50-59 and 4:40-5:52 and structure at 8:45). Freiberg et al. further teaches an alkoxysilane such as dimethyldiethoxysilane, dimethyldimethoxysilane, and ethylmethyldiethoxysilane (6:52-53). Freiberg et al. further teaches that the composition comprises (c) a filler (3:9), and (d) a photocatalyst, which can be a mixture of a dialkoxy-functional chelated titanate and a tetraalkoxy-functional chelated titanate (2:60-67). While Freiberg et al. does not employ the claimed dialkoxy-functional chelated titanate catalyst exclusively, it is nevertheless the position of the examiner that Freiberg et al. teaches the claimed composition in the manner of "consisting essentially of". The role of both the di- and tetraalkoxy titanium curing catalysts is the same; therefore the presence of the tetraalkoxy titanium curing catalyst should not materially affect the properties of the claimed composition as per MPEP 2111.03 which is concerned with claims presented using "consisting essentially of" language. Further, Applicant's teach that suitable photocatalysts include tetraalkoxytitanium catalysts (paragraph 0029 of instant application).

Freiberg et al. does not explicitly teach that the addition of an unsaturated compound to the composition as required by instant claim 18. However, Hatanaka et al. teaches a room-

temperature curable composition which has a fatty acid (abstract) which may be unsaturated, such as oleic acid (5:22 and 6:8-9). Freiberg et al. and Hatanaka are combinable because they are from the same field of endeavor, namely, moisture curable compositions based on polysiloxanes having silanol groups, curing catalysts, and silane crosslinkers. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the fatty acids such as oleic acid taught by Hatanaka et al. to the compositions of Freiberg et al. and would have been motivated to do so because the addition of such a component improves the curing characteristics of the composition (5:19-21).

Response to Arguments

Applicant's arguments, filed 7/21/08, with respect to instant claims 1-16 have been fully considered.

Applicants argue that Freiberg et al. disclose a large genus and as such cannot be relied upon as prior art. However, it should be noted that Freiberg et al. explicitly teaches the use of dialkoxydisubstituted silanes, including methylvinyldimethoxysilane. While Freiberg et al. also teaches that tri- and tetraalkoxysilanes are also useful is not sufficient to remove Freiberg et al. as a prior art reference. A reference may be relied upon for all that it teaches including non-preferred embodiments. While no silane coupling agents having only two hydrolyzable groups are employed in any specific teachings, it is nonetheless taught by Freiberg et al. to be an appropriate silane coupling agent.

Applicants argue that Freiberg et al. teaches away from using titanate compounds having less than an average of three alkoxy radicals bonded to titanium. The Examiner disagrees with

this assertion, preference of another compound versus another is NOT considered to be a teaching away, but merely as stated a preference (the motivation for that preference may not be known). A teaching away would be suggestion of a prior art that the compound in question would not work or would be detrimental to the final product of used. This is not the case with Freiberg et al., which explicitly suggests mixtures of titanium catalysts may be used including ones which satisfy the limitations of instant claims 17 and 18.

Applicants argue that Freiberg et al. does not teach curing the compositions in the presence of light. This argument has effectively been responded to in the previous Office action and is addressed in the rejections above.

Applicants argue that Freiberg et al. do not teach any method for surface modification of cured products. The Examiner is interpreting this statement to be a reflection of the limitations of instant claim 13. Currently, Freiberg et al. now relied upon as a primary reference in a 103(a) rejection of instant claim 13, as described above.

Applicants argue that Freiberg et al. does not teach or suggest the benefit of having unsaturated groups in the compositions taught therein. However, the absence of such a teaching is inconsequential to the fact that Freiberg et al. anticipates the compositions of independent claims 1 and 17 and is relied upon as a primary reference in the 103(a) rejection of instant claim 18 above.

Relevant Art Cited

The prior art made of record and not relied upon but is considered pertinent to applicants disclosure can be found on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
25-Jul-08

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796